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EXAMINER

COLUCCI, MICHAEL C

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/539,238	Applicant(s) KERIMOVSKA ET AL.	
	Examiner MICHAEL C. COLUCCI	Art Unit 2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 May 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7,9-13,15-17,19,20,23,24,26-32,34,35,37,39-42 and 45-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7,9-13,15-17,19,20,23,24,26-32,34,35,37,39-42 and 45-47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicants arguments with respect to claims 1 and 6 have been considered but are moot in view of the new grounds of rejection. Examiner has withdrawn Feilner et al. (hereinafter US 6463263 B1) and has instead incorporated Lee US 20020022503 A1 (hereinafter Lee). Examiner believes that the speech generating device no longer *comprises* a functional cover but in fact now is configured as a functional cover. Further, Examiner understands that if a device is configured as a functional cover and is both *external* and *attachable*, Examiner interprets this to be a folding cellular phone. Lee teaches a phone that comprises a separate display and speaker from the body of the phone, wherein when the phone is closed information is communicated differently than when open. Therefore, it would be obvious for the controller of Lee to be in communication with the processor of Roth, wherein Roth teaches that multiple microprocessors may be present in claim 109. One of these microprocessors could be that of Lee to control the dual display operation of text display as well as voice recognition. Figure 4 of Lee element 40 could be responsible for the communication of a front cover microphone containing LCD operations. Further, the scrolling operations of claim 20 indicate that a folding phone would be a likely candidate for being both *external* and *attachable*. Please see rejection below.

Argument (page 12 ¶ 4):

- “while Kivimald may describe “determining a desired start position from a selection defined by punctuation identifiers” and “outputting speech synthesized text from that [start] position” (Kivimald, paragraph [0025]), Kivimaki fails to disclose or suggest sending data to a TTS (or other speech generating device) responsive to input of the punctuation identifiers”

Response to argument:

Kivimald explicitly teaches TTS and punctuation identifiers, wherein Kivimald teaches that examples of punctuation identifiers are those which indicate an end of sentence such as a full stop (period) exclamation mark, question mark, capital letter, consecutive spaces, comma and other identifiers which indicate a logical break within the sentence, such as the comma, colon, semi-colon or dash. Alternatively, it may involve a punctuation identifier which indicates an end of a group of a predetermined number of words. The portion of the text between identifiers sent one at a time to the TTS engine 16 (Kivimald [0044]).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1-5, 7, 15-17, 19, 20, 23-24, 26, 27, 34-35, 37, 39-41, and 45** are rejected under 35 U.S.C. 103(a) as being unpatentable over Roth et al. (PGPUB 2004/0049388), hereinafter referenced as Roth in view of Lee US 20020022503 A1 (hereinafter Lee).

Regarding **claim 1**, Roth discloses an apparatus comprising:

a display configured to display various readable data (displays on the touch screen; column 6, paragraph 0120);

a control unit (CPU/microprocessor) configured to extract at least a part of the displayed data and configured to send the extracted part of the displayed data to a speech generating device that is configured to generate speech from the extracted part of the displayed data (column 6, paragraph 0120),

wherein the speech generating device (cell phone; column 3, paragraph 0034) comprises

However, Roth fails to teach a speech generating device that is external to and physically attachable to the apparatus and is configured as a functional cover, and wherein the functional cover comprises a shell configured to cover at least a substantial portion of a front of the apparatus and a microprocessor configured to cooperate with the control unit of the apparatus.

Lee teaches the mobile phone of the dual display according to the present invention includes: an RF terminal 46 for transmitting and receiving RF signal through an antenna 25; a speaker 50 for outputting sound signal; a microphone 55 for inputting

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sound signal; a battery 20 for supplying power; a main LCD 35 mounted on a front surface of a second housing 10 of the phone for displaying operational conditions, messages, etc.; a top view LCD 30 mounted on an upper end surface of the housing 10 for displaying an intensity of wave reception, remaining amount of battery, time, messages, etc.; a controller 40 connected with the RF terminal 46, the main LCD 35, the top view LCD 30, the speaker 50 and the microphone 55 for controlling to perform a communication function and a message display function; a SRAM 44 for providing a memory area required for the operation of the controller 40; a flash memory 42 for providing a data storing area required for storing messages and an address book; and a keypad 48 connected to the controller 40 and having keys associated for the operation of the mobile phone. The RF terminal 46, the controller 40, the flash memory 42, the SRAM 44, the keypad 48, the microphone 55, and the top view LCD 30 are received in the second housing 10, which is a body of the phone, and the top view LCD 30 is mounted on an upper end of the second housing 10. The speaker 50 and the main LCD 35 are mounted on a first housing 15, which serves as a folder. The first and second housings 15 and 10 have ends respectively hinged with each other at a hinge part 32 to be opened and shut (Lee [0028-0029] & Fig. 2).

Further, consider the control of two separate displays in two areas of the cellular phone, wherein a keypad is connected to the controller and having keys associated for the operation of the mobile phone; a first housing serving as a folder, wherein the main display is mounted on an inner surface of the first housing; a second housing hinged with the first housing at an end thereof and containing the RF terminal and the controller

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within, wherein the keypad is mounted on an inner surface of the second housing; and a top view display mounted on an upper end surface of the second housing for displaying at least one of information of phone state and messages, wherein the controller displays information of phone state on the top view display in a state that the folder is shut during standing by for incoming call and displays it on the main display in a state that the folder is opened, and if incoming call is received, discriminates kinds of the incoming call and displays at least one of a caller's ID, SMS text receiving sign and message sign, and voice mail receiving sign (Lee [0016] & Fig. 6 and 7).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Roth to incorporate a speech generating device that is external to and physically attachable to the apparatus and is configured as a functional cover, and wherein the functional cover comprises a shell configured to cover at least a substantial portion of a front of the apparatus and a microprocessor configured to cooperate with the control unit of the apparatus as taught by Lee to allow for a dual operation of a phone, such as for text display purposes when a phone is shut and speech recognition when a phone is open, wherein a controller displays information of phone state on the top view display in a state that the folder is shut during standing by for incoming call and displays it on the main display in a state that the folder is opened, and if incoming call is received, discriminates kinds of the incoming call and displays at least one of a caller's ID, SMS text receiving sign and message sign, and voice mail receiving sign (Lee [0016] & Fig. 6 and 7), where one of the processors of

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Roth could implement the control aspect of the 2nd LCD and text display means of Lee on a front portion of a folding phone.

Regarding **claim 2**, Roth discloses an apparatus wherein the control unit is configured to automatically send said extracted part of the displayed data to the speech generating device a line or word (word; column 28, paragraphs 0369-0373).

Regarding **claim 3**, Roth apparatus wherein the control unit is configured to send said extracted part of the displayed data to the speech generating device a line based on the scrolling the display (word; column 28, paragraphs 0369-0373).

Regarding **claims 4 and 23**, Roth discloses an apparatus wherein displayed data includes text from menus (menu; column 8, paragraph 0140), text messages, help information (help mode; column 2, paragraph 0029), calendars and/or confirmation of actions taken with the apparatus.

Regarding **claims 5 and 24**, Roth discloses an apparatus wherein the control unit is configured to send said extracted part of the displayed data to the speech generating device a line or word at a time based on inputting characters to the apparatus via a keypad (user scrolls to a selection; column 28, paragraphs 0371-0373).

Regarding **claims 7 and 26**, Roth discloses an apparatus and method wherein the control unit is configured to extract the displayed data from a selected file and automatically send the displayed data to the speech generating device the controllable rate (user scrolls to a selection; column 28, paragraphs 0371-0373).

Regarding **claims 15 and 34**, Roth discloses an apparatus wherein the speech generating device includes a microcontroller is configured to be connected to a memory device containing language information including various languages, abbreviation list and/or dictionaries (dictionaries; column 1, paragraph 0019).

Regarding **claims 16 and 35**, Roth discloses an apparatus wherein the speech generating device includes a microcontroller is configured to be connected to a memory device containing voice settings (speech settings; column 9, paragraph 0156).

Regarding **claim 17**, Roth discloses an apparatus wherein the speech generating device includes a microcontroller is configured to be connected to the apparatus via a system connector having an interface for audio signals (audio signal; column 10, paragraph 0167), serial channels, power leads and/or analog and digital grounds leads.

Regarding **claim 19**, Roth discloses an apparatus wherein the apparatus comprises a portable telephone (PDA), a pager, a communicator and/or an electronic organizer, and wherein the display (screen) and the control unit are built into the apparatus (column 6, paragraph 0118-0120 with figure 9).

Regarding **claims 20**, it is interpreted and rejected for similar reasons as set forth in claim 1. In addition, Roth discloses an apparatus, comprising:

a display configured to display various readable data (display; column 6, paragraph 0120);

a control unit (CPU/microprocessor; column 6, paragraph 0120); and

a speech generating device including a conversion circuit therein configured to convert received data to a speech signal (TTS; column 27, paragraph 0352) and configured to be connect to a speaker system (speaker; column 6, paragraph 0120),

wherein the control unit is configured to extract at least a part of the displayed data and send the extracted part of the displayed data to the speech generating device at a fixed and/or controllable rate based on user interaction with the display comprising scrolling (scroll) and /or voice control input received from a user (column 28, paragraphs 0371-0373).

Regarding **claim 27**, Roth discloses an apparatus wherein the speaker system is integrated with the apparatus (speaker; column 6, paragraph 0120).

Regarding **claim 37**, Roth discloses a computer program product comprising a computer readable storage medium having computer readable code embodied therein, the computer readable program code configured to be loaded into internal memory of an apparatus having a display for showing various readable data, the computer readable program code comprising:

computer readable program code configured to achieve the functionality of the apparatus (software code; column 36, paragraph 0458).

Regarding **claim 39**, it is interpreted and rejected for the same reasons as set forth in claim 1. In addition, Roth discloses a mobile phone handset, comprising:

a display configured to display various readable data (displays on touch screen; column 6, paragraph 0120);

a speaker (speaker; column 6, paragraph 0120);

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a speech generating device built into the mobile phone handset (cell phone; column 3, paragraph 0034) including a conversion circuit therein configured to convert received data to a speech signal (TTS) and provide the speech signal to the speaker (column 27, paragraph 0352); and

a control unit (CPU/microprocessor) configured to extract at least a part of the displayed data and send the extracted part of the displayed data to the speech generating device (column 6, paragraph 0120).

Regarding **claim 40**, Roth disclose a mobile phone handset

wherein the control unit is configured to send the extracted part of the displayed data to the speech generating device at the controllable rate based on user interaction with the display (scroll) comprising a voice control input (paragraphs 0371-0373 with paragraph 0034).

Regarding **claim 41**, Roth discloses a mobile phone headset wherein the control unit is configured to send said extracted part of the displayed data to the speech generating device responsive to input of characters to the mobile phone headset (input buttons; column 6, paragraphs 0118-0120).

Regarding **claim 45**, Roth teaches an apparatus according to Claim 1, wherein the control unit is configured to send the extracted part of the displayed data to the speech generating device at a controllable rate and in response to scrolling the displayed data ([0448]).

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4. Claims 6, 25 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roth in view of Lee and in further view of Kivimaki (PGPUB 2001/0014860).

Regarding **claims 6, 25 and 42**, Roth in view of Lee disclose a TTS apparatus, but does not specifically teach wherein the control unit is configured to send the displayed data to the speech generating device responsive to input of spaces and/or punctuation.

Kivimaki discloses an apparatus wherein the control unit is configured to send the displayed data to the speech generating device responsive to input of spaces and/or punctuation (punctuation identifiers; paragraphs 0025, 0046 and 0082), to convert speech to text.

Therefore, it would have been obvious to one of ordinary skill of the art at the time the invention was made to modify Roth in view of Lee's apparatus as described above, to improve the level of comprehension a user has of speech output from such speech synthesizer systems (paragraph 0004), as taught by Kivimaki.

5. Claims 9-13 and 28-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roth in view of Lee and in further view of Freeland et al. (WO 01/57851 A1), hereinafter referenced as Freeland.

Regarding **claims 9 and 28**, Roth in view of Lee disclose a speech recognition apparatus, but does not specifically teach wherein the data is received as ASCII characters.

Freeland discloses an apparatus wherein the data is received as ASCII characters (standard English, such as Americanised English; column 22, lines 22-24 with column 28, lines 6-10), to provide a customized system and apparatus.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Roth in view of Lee's apparatus wherein the data is received as ASCII characters, as taught by Freeland, to allow the information to be delivered in the preferred language (column 22, lines 20-24).

Regarding **claims 10 and 29**, Roth in view of Lee disclose a speech recognition apparatus, but does not specifically teach wherein the speech generating device includes a conversion circuit is configured to support various selectable languages.

Freeland discloses an apparatus wherein the speech generating device includes a conversion circuit is configured to support various selectable languages (other languages can be used; column 22, lines 22-24), to provide a customized system and apparatus.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Roth in view of Lee's apparatus wherein the speech generating device includes a conversion circuit is configured to support various selectable languages, as taught by Freeland, to allow the information to be delivered in the preferred language (column 22, lines 20-24).

Regarding **claims 11 and 30**, Roth in view of Lee disclose a speech recognition apparatus, but does not specifically teach wherein the conversion circuit is configured to download languages via the connected apparatus.

Freeland discloses an apparatus wherein the conversion circuit is configured to download languages via the connected apparatus (upload; column 24, lines 5-18 with column 17, lines 8-12), to provide a user-customizable supported word-base with the character TTS system.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Roth in view of Lee's apparatus wherein the conversion circuit is configured to download languages via the connected apparatus, as taught by Freeland, to allow the user to define which words in the customizable supported word-base which are to be supported word-base, audio format speech samples to provide suitable recorded speech units for each supported word in said supported word-base (column 24, lines 5-12).

Regarding **claims 12 and 31**, Roth in view of Lee disclose a speech recognition apparatus, but does not specifically teach wherein the speech generating device includes a conversion circuit is configured to support various selectable voices.

Freeland discloses an apparatus wherein the speech generating device includes a conversion circuit is configured to support various selectable voices (spoken voices; column 22, lines 22-29), to obtain one or more characters speaking in the target language.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Roth in view of Lee's apparatus wherein the speech generating device includes a conversion circuit is configured to support various selectable voices, as taught by Freeland, to provide a user-customizable supported system (column 34, lines 5-12).

Regarding **claims 13 and 32**, Roth in view of Lee disclose a speech recognition apparatus, but does not specifically teach wherein the conversion circuit is configured to download the voices via the connected apparatus.

Freeland discloses an apparatus wherein the conversion circuit is configured to download the voices via the connected apparatus (downloading voices; column 40, lines 27-33), to allow the user to customize the apparatus.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Roth in view of Lee's apparatus wherein the conversion circuit is configured to download the voices via the connected apparatus, as taught by Freeland, to allow the information to be delivered in various sounds and tones, to provide a customized apparatus and method (column 40, line 27- column 41, line 5).

6. Claims 46 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roth in view of Lee and in further view of Weiner US 20020159600 A1 (hereinafter Weiner).

Regarding claims 46 and 47, Roth in view of Lee fails to teach the apparatus according to Claim 20, wherein the speech signal comprises at least one word corresponding to a meaning of a short messaging system (SMS) icon.

Weiner teaches Free-hand drawn or written SMS messages entered onto the pad comprise a set of position tracking coordinates that are translated into a mathematical function. The resulting mathematical function defines the way in which the independent coordinates are connected. The mathematical function, which includes information, or parameters, necessary to recover the coordinates upon "decoding" the mathematical function, is "cut", or limited, into "slices", each containing 160 ASCII characters in order to fit into the quantization predefined by specification for SMS messaging. As mentioned above, in the initial divided SMS message, or slice, a unique header is inserted, along with the data content. This unique header contains information that informs the decoder on the receiving end of the message that the next N SMS messages (N typically being an integer) comprise a single free-hand SMS message. In accordance with one embodiment of the invention, the encoded SMS message is then routed to a network Server where the decoding function is performed. However, decoding can be performed elsewhere, such as in the ISC of the receiving handset. After the message has been decoded, OCR can be performed to recover any characters that may have been included in the original SMS message. Again, it should be noted that the decoding function and the OCR function can be performed in areas other than the network server. For example, the ISC, within the receiving handset, can be equipped to perform these tasks. Subsequent to performing OCR on the message,

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the server can further encode the message, if desired. For instance, similar to the way by which the encoding of the coordinates assists in carrying out OCR, other such encoding techniques can be employed to assist in the efficient transmittal of non-character, or picture, messages (Weiner [0057-0059]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Roth in view of Lee to incorporate the speech signal comprises at least one word corresponding to a meaning of a short messaging system (SMS) icon as taught by Weiner to allow for a hand drawn or symbolic message (image) to be converted to a textual form as a means to recover any characters that may have been included in the original SMS message (Weiner [0057-0059]).

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Colucci whose telephone number is (571)-270-1847. The examiner can normally be reached on 9:30 am - 6:00 pm, Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (571)-272-7602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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